



BEFORE THE ARIZONA CORPORATION COMMISSION

MIKE GLEASON
Chairman
WILLIAM A. MUNDELL
Commissioner
JEFF HATCH-MILLER
Commissioner
KRISTIN K. MAYES
Commissioner
GARY PIERCE
Commissioner

Arizona Corporation Commission

DOCKETED

MAY 16 2008

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IN THE MATTER OF THE APPLICATION)
OF UNS ELECTRIC, INC.'S APPLICATION)
FOR APPROVAL OF ITS PROPOSED)
LOW-INCOME WEATHERIZATION)
PROGRAM WITHIN ITS DEMAND-SIDE)
MANAGEMENT PORTFOLIO FOR 2008-)
2012)

DOCKET NO. E-04204A-07-0365

DECISION NO. 70347

ORDER

Open Meeting
May 6 and 7, 2008
Phoenix, Arizona

BY THE COMMISSION:

FINDINGS OF FACT

1. UNS Electric, Inc. ("UNS Electric" or "Company") is engaged in providing electric power within portions of Arizona, pursuant to authority granted by the Arizona Corporation Commission.

2. On June 13, 2007, UNS Electric filed an application for approval of its proposed Demand-Side Management ("DSM") Program Portfolio. On November 14, 2007, UNS Electric filed a revised Portfolio Plan, modifying the delivery mechanism and the measurement and evaluation plans, for some programs. The Program Portfolio consists of seven proposed programs. The Low-Income Weatherization ("LIW") program is addressed below.

Program Description

3. Summary. The existing LIW program was designed to conserve energy and lower utility bills for UNS Electric households with limited incomes. UNS Electric proposes to enhance the LIW program and move it into the Company's DSM Portfolio. Proposed changes include an

1 expanded set of efficiency measures and tracking to establish and verify energy savings realized by
2 the program. Also proposed is an annual budget increase (from \$70,000 to \$105,000) and an
3 increased per-residence spending limit (from \$1,600 to \$2,000).¹

4 4. Goals. The primary goal of the LIW Program is to fund weatherization of low-
5 income homes, and reduce energy costs and improve comfort and safety for low-income
6 customers. The LIW Program also conserves energy, and reduces both electric and gas
7 consumption. Under the enhanced program, UNS Electric proposes to increase the number of
8 homes weatherized and/or the extent of repair completed at each home.

9 5. Eligibility. The LIW Program is available to UNS Electric residential customers
10 with household incomes less than or equal to 150 percent of the federal poverty guidelines. (For
11 2008, 150 percent of the federal poverty guidelines would be \$15,600 for a one person household
12 and \$33,300 for a four person household). The LIW program is the only UNS Electric DSM
13 program with income requirements.

14 6. In the UNS Electric territory, homes eligible for the LIW program consist primarily
15 of older homes, including mobile homes and single-family homes constructed of slump block
16 and/or homes with wood frame construction. Homes are prioritized based on factors that include
17 the following:

- 18 • No heat in the winter, or no cooling in the summer;
- 19 • Elderly or minors in the household;
- 20 • Physical handicaps or illness; and
- 21 • Number of people in the household.²

22 7. Health and Safety Measures. UNS Electric regards customers' health and safety as
23 a priority over energy savings. Community action agencies are allowed to use up to 25 percent of
24 the UNS Electric funding for health and safety measures. Health and safety measures are not
25 considered weatherization, but may be required in order to allow effective weatherization and to
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27 ¹With an increase from \$1,600 to \$2,000, the UNS Electric per-residence spending limit would match the per-
28 residence spending limit for the UNS Gas LIW program.

²WAP rules indicate that "high energy consuming housing" is a priority, and energy consumption rises as the number
of residents in a home increases.

1 protect customers. Examples of these measures include work required to address rotting wood,
2 mold or unsanitary conditions, lack of ventilation or potential fire hazards.

3 8. Staff acknowledges the importance of health and safety measures, but has
4 recommended that DSM funding be utilized whenever possible for weatherization activities that
5 conserve energy. In cases where alternate funding sources are available, those funds should be
6 utilized for any non-weatherization activities before DSM funding is tapped. DSM funding used
7 for any health and safety measure should be counted against the 25 percent cap and reported in the
8 UNS Electric semi-annual DSM filing.

9 9. Weatherization Measures. Under the LIW Program, weatherization would be done
10 in accordance with the Weatherization Assistance Program ("WAP"). WAP is funded by the U.S.
11 Department of Energy and administered by the Arizona Department of Commerce Energy Office
12 ("AEO"). The major weatherization measures would generally fall into four categories:

- 13 • Duct repair;
- 14 • Pressure management/infiltration control;
- 15 • Attic insulation; and
- Repair or replacement of non-functional or hazardous appliances.

16 10. With respect to the last item, neither installation of new equipment nor repair of
17 non-functioning equipment would be DSM measures, because either would result in more energy
18 use, not less. In cases where non-functioning equipment is replaced, only the incremental cost of
19 installing high-efficiency equipment (rather than standard equipment) can be considered DSM
20 spending. Staff has recommended that other costs of repair and replacement be counted against
21 the 25 percent cap on health and safety spending.

22 11. The actual measures installed in a specific home would be based on an on-site audit
23 and would be required to meet WAP cost-effectiveness tests.

24 12. Additional Weatherization Measures. In addition to the above major weatherization
25 efforts, additional measures may include the following lower-cost items: (i) compact fluorescent
26 lamps ("CFLs") would be installed, if not already in place; (ii) water heater blankets would be

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1 installed, if appropriate under health and safety rules; (iii) low-flow shower heads and (iv) faucet
2 aerators. (The last two items would be installed, if cost-effective and if funding is available.)³

3 13. The average cost for installing all four measures is estimated at approximately \$40
4 per home, or \$20 for materials and \$20 for additional labor. If all homes from both the main
5 weatherization program and the emergency home repair component (below) received these
6 installations the estimated cost would be 3 percent-4 percent of the proposed initial budget.

7 14. Staff has recommended that every home where CFLs are installed under the UNS
8 Electric LIW DSM program be provided with information regarding the proper disposal of burned
9 out or broken CFLs.

10 15. Emergency Home Repair. Agencies perform emergency repairs with funding from
11 the Low Income Home Energy Assistance Program ("LIHEAP"), the Department of Energy
12 ("DOE") and the Utility Repair, Replace and Deposit Program ("URRD"). Emergency repairs
13 performed include roofing repairs or replacement, flood-related repairs, and repair or replacement
14 of non-functioning heating and cooling systems. The UNS Electric LIW program would not fund
15 these emergency repairs, but would provide additional, alternative, funding for installation of the
16 lower-cost energy efficiency measures listed in (i) through (iv), under "Additional Weatherization
17 Measures."

18 16. Incentives. The UNS Electric LIW program would provide funding of up to \$2,000
19 per house for installation of weatherization and health/safety measures. (Agencies may request a
20 waiver of this cap on a case-by-case basis from UNS Electric.⁴) While the program portfolio refers
21 to these payments as "incentives," these payments represent reimbursements to community action
22 agencies for completed weatherization work done on low-income homes.

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26 ³With respect to the benefits of the four measures: (i) CFLs use approximately 75% less energy than standard bulbs,
27 also producing less heat, which can cut cooling costs; (ii) if a water heater's insulation has an R-value of less than
28 R-24, a water heater blanket can reduce water heating costs by 4-9%; (iii) efficient showerheads can reduce the hot
water consumed during showers by 30%; (iv) faucet aerators provide energy and water savings, and limit wastewater.

⁴ An example of the type of situation where a waiver may be requested is when the HVAC system needs to be replaced
and the home also requires major weatherization

Delivery Strategy

17. The revised LIW program would be administered by UNS Electric, community action agencies, and the AEO. UNS Electric would provide funding to the participating community action agencies, the Western Arizona Council of Government ("WACOG") and Southeastern Community Action Program ("SEACAP"), based on completed and documented weatherization work. WACOG and SEACAP would promote the LIW program, determine participant eligibility and priority, and would provide program administration. The actual weatherization work would be done either by the agencies or their contractors. The AEO would provide an on-line process for data collection and input, while the agencies would complete the process and input the required data. The AEO would work with UNS Electric to provide the information needed to meet Arizona Corporation Commission ("ACC" or "Commission") reporting requirements.

Marketing

18. The LIW Program is marketed through:

- UNS Electric employees;
- Referrals from the local Department of Economic Security ("DES");
- Health care service agencies, and individual caseworkers;
- The UNS Electric website; and
- A brochure developed by UNS Electric for use by DES and participating agencies.

19. UNS Electric has confirmed that the backlog of homes in its LIW program has decreased, and that, due to the housing downturn, there is no longer a shortage of the skilled workers required for weatherization work. The Company has expressed that it is willing to do more marketing if the agencies indicate that it is necessary to increase awareness of the program.

Program Budget

20. The budget for the proposed low-income weatherization program is provided below. UNS Electric would retain up to 10 percent of the program budget for its internal

administration of the program (see "Total Administrative Cost" in the table below). The remaining funds, would be divided between the two participating community action agencies based on the number of UNS Electric customers in the areas overseen by those agencies. The WACOG would receive 73 percent of LIW funding, while SEACAP would receive 27 percent.

21. Proposed Low-income Weatherization 2008 Budget

Managerial and Clerical	\$5,460
Overhead	\$546
Total Administrative Cost	\$6,006
Support Activity Labor	\$3,000
Rebate Processing and Inspection	\$2,552
Total Direct Implementation (minus incentives)	\$5,552
Financial Incentives ⁵	\$89,242
Total Incentives	\$89,242
EM&V ⁶ /Research Activity	\$3,780
EM&V Overhead	\$420
Total EM&V	\$4,200
Total Program Budget	\$105,000

2008-2012 Program Budgets

Year	2008	2009	2010	2011	2012
Total Budget	\$105,000	\$108,150	\$111,395	\$114,736	\$118,171

22. The year-by-year budget shown in the table above includes a 3 percent annual increase to compensate for inflation.

LIW Spending in 2007

23. The actual amount UNS Electric reported in LIW DSM spending was \$67,034. Of that amount, \$54,348 was spent for weatherization, and \$4,708 was spent to administer the 2007 LIW program. An additional \$7,978 was spent to cover UNS Electric's in-house labor costs to plan and develop the enhanced LIW program that is now part of the UNS Electric's proposed DSM programs.

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⁵ This refers to the amount paid to community action agencies for weatherization and health and safety activities. Staff does not consider these payments to be incentives.

⁶ Evaluation, Measurement and Verification.

24. Staff has recommended that UNS Electric retain no more than 10 percent of LIW funding for its internal administration of the program without prior Commission approval.

25. Staff has recommended that UNS Electric ensure that its in-house labor costs are recovered either from base rates or from the DSM adjustor once it is in place, but not from both.

Participation

26. Thirty-six homes were weatherized under the existing program in 2007, at a total cost of \$54,348, or an average of \$1,509 per home: \$54,348 represents 86 percent of the \$63,000 allocated to the participating action agencies. The Company has indicated that the under-spending was due to the absence of a weatherization staffer at SEACAP for most of 2007. (WACOG spent its full allocation.) SEACAP now has a weatherization staffer in place and has indicated to UNS Electric that it would be able to spend all of its funding this year, including the increase arising from a larger budget. (Funds allocated but not spent are not rolled forward; UNS Electric reports the actual program spending.) With a budget increase from \$70,000 to \$105,000, UNS Electric projects that approximately 50 low-income homes would be weatherized under its LIW program in 2008.

Monitoring and Evaluation

27. Working with AEO, UNS Electric would track, manage, and evaluate the program, adopting a strategy of integrated data collection that would include the following activities:

28. Database management – participating agencies would collect data and AEO would provide period reporting.

29. Implementation of integrated data collection – UNS Electric and AEO would establish a system of data collection to support program management and evaluation;

30. Field verification – the AEO or its contractor would verify the installation of a sample of measures.

31. Tracking of savings using deemed savings values – AEO would establish the savings for each measure and technology and would periodically review and revise the savings based on bill analysis.

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32. This approach would provide UNS Electric with ongoing feedback on program progress and enable management to adjust or correct programs to be more cost-effective.

Reporting Requirements

33. UNS Electric files semi-annual reports concerning its DSM programs. Staff has recommended that the Company continue to do so. For the LIW program, these should include, at a minimum (i) the number of homes weatherized; (ii) the percentage of the overall LIW budget spent on health and safety spending; (iii) the amount of LIW funding retained by UNS Electric for administration, planning, development, or any other purpose; (iv) copies of new or revised marketing materials; (v) estimated cost savings to participants; (vi) gas and electric savings as determined by the monitoring and evaluation process; (vii) the total amount of the program budget spent during the previous six months, the previous year and since the inception of the program; (viii) any significant impacts on program cost-effectiveness; and (ix) descriptions of any problems and proposed solutions, including movements of funding from one program to another.

Cost-Benefit Analysis

34. Although Staff calculated the benefit-cost ratio of the LIW program at .94, slightly below the cost-effectiveness threshold, the program can be considered cost-effective once the projected environmental savings (which are not monetized, but which are greater than zero) are also taken into account. In the case of the LIW program, the projected cost of health and safety measures, estimated at 15 percent of the total LIW budget, would be excluded from the cost-effectiveness calculation.

35. Staff has recommended that UNS Electric work to improve the cost-effectiveness of the UNS Electric LIW program.

CO2 Savings

36. The projected CO2 savings from the LIW program are provided in the table below. This number represents an estimate of the lifetime CO2 savings from the homes projected to be weatherized over the five-year course of the LIW program. If more than 50 homes are weatherized per year, carbon dioxide savings are likely to be higher.

37. **LIW Projected Environmental Benefits, 2008 - 2012**

CO2 Lifetime Savings	16,563,100	Pounds
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Estimated Cost Per Therm and kWh Saved

38. If 50 homes per year are weatherized in 2008, Staff's analysis indicates that the LIW program would save 2,260,000 kWh and 106,000 therms over the lifetime of the measures. Splitting program costs between electric and gas savings, Staff estimates that the cost per kWh saved would be \$0.023, while the cost per therm saved would be \$0.50.

Summary of Staff Recommendations

39. Staff has recommended that DSM funding be utilized whenever possible for weatherization activities that conserve energy. In cases where alternate funding sources are available, those funds should be utilized for any non-weatherization activities before DSM funding is tapped.

40. Staff has recommended that costs of repair and replacement be counted against the 25 percent cap on health and safety spending, with the exception of the incremental cost of installing high-efficiency (rather than standard) replacement equipment.

41. Staff has recommended that UNS Electric be allowed to shift unused funding from other Residential UNS Electric DSM programs into the LIW program where this would facilitate DSM program objectives.

42. Staff has recommended that every home where CFLs are installed under the UNS Electric LIW DSM program be provided with information regarding the proper disposal of burned out or broken CFLs.

43. Staff has recommended that no funding be shifted out of the LIW program without prior Commission approval.

44. Staff has recommended that UNS Electric retain no more than 10 percent of LIW funding for its internal administration of the program without prior Commission approval.

45. Staff has recommended that UNS Electric ensure that its in-house labor costs are recovered from base rates, or from the DSM adjustor once it is in place, but not from both.

46. Staff has recommended that UNS Electric work to improve the cost-effectiveness of the UNS Electric LIW program, whenever feasible.

47. Staff has recommended that the Company continue to file semi-annual DSM reports, and that, for the LIW program, these should include, at a minimum (i) the number of homes weatherized; (ii) the percentage of the overall LIW budget spent on health and safety spending; (iii) the amount of LIW funding retained by UNS Electric for administration, planning, development, or any other purpose; (iv) copies of new or revised marketing materials; (v) estimated cost savings to participants; (vi) gas and electric savings as determined by the monitoring and evaluation process; (vii) the total amount of the program budget spent during the previous six months, the previous year and since the inception of the program; (viii) any significant impacts on program cost-effectiveness; and (ix) descriptions of any problems and proposed solutions, including movements of funding from one program to another.

CONCLUSIONS OF LAW

1. UNS Electric is an Arizona public service corporation within the meaning of Article XV, Section 2, of the Arizona Constitution.

2. The Commission has jurisdiction over UNS Electric and over the subject matter of the application.

3. The Commission, having reviewed the application and Staff's Memorandum dated April 22, 2008, concludes that it is in the public interest to approve the Low-Income Weatherization program.

ORDER

IT IS THEREFORE ORDERED that the Low-income Weatherization program be and hereby is approved, with the modifications listed below.

IT IS FURTHER ORDERED that DSM funding be utilized whenever possible for weatherization activities that conserve energy. In cases where alternate funding sources are available, those funds should be utilized for any non-weatherization activities before DSM funding is tapped.

• • •

1 IT IS FURTHER ORDERED that costs of repair and replacement be counted against the
2 25 percent cap on health and safety spending, with the exception of the incremental cost of
3 installing high-efficiency (rather than standard) replacement equipment.

4 IT IS FURTHER ORDERED that UNS Electric, Inc. be allowed to shift unused funding
5 from other Residential UNS Electric DSM programs into the LIW program where this would
6 facilitate DSM program objectives.

7 IT IS FURTHER ORDERED that every home where CFLs are installed under the UNS
8 Electric LIW DSM program be provided with information regarding the proper disposal of burned
9 out or broken CFLs.

10 IT IS FURTHER ORDERED that no funding be shifted out of the LIW program without
11 prior Commission approval.

12 IT IS FURTHER ORDERED that UNS Electric, Inc. retain no more than 10 percent of
13 LIW funding for its internal administration of the program without prior Commission approval.

14 IT IS FURTHER ORDERED that UNS Electric, Inc. ensure that its in-house labor costs
15 are recovered from base rates, or from the DSM adjustor once it is in place, but not from both.

16 IT IS FURTHER ORDERED that UNS Electric, Inc. work to improve the cost-
17 effectiveness of the UNS Electric LIW program.

18 IT IS FURTHER ORDERED that UNS Electric, Inc. continue to file semi-annual DSM
19 reports, and that the LIW program reports include, at a minimum (i) the number of homes
20 weatherized; (ii) the percentage of the overall LIW budget spent on health and safety spending;
21 (iii) the amount of LIW funding retained by UNS Electric, Inc. for any purpose; (iv) copies of new
22 or revised marketing materials; (v) estimated cost savings to participants; (vi) gas and electric

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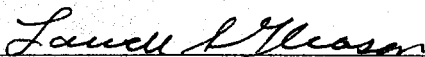
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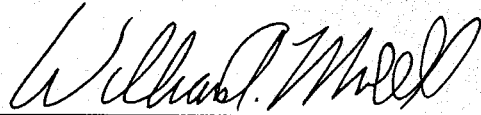
savings as determined by the monitoring and evaluation process; (vii) the total amount of the program budget spent during the previous six months, the previous year, and since the inception of the program; (viii) any significant impacts on program cost-effectiveness; and (ix) descriptions of any problems and proposed solutions, including movements of funding from one program to another.

IT IS FURTHER ORDERED that this Decision shall become effective immediately.

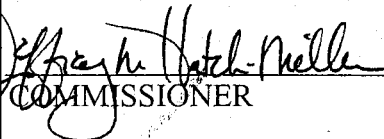
BY THE ORDER OF THE ARIZONA CORPORATION COMMISSION



CHAIRMAN



COMMISSIONER



COMMISSIONER



COMMISSIONER



COMMISSIONER

IN WITNESS WHEREOF, I, BRIAN C. McNEIL, Executive Director of the Arizona Corporation Commission, have hereunto, set my hand and caused the official seal of this Commission to be affixed at the Capitol, in the City of Phoenix, this 16th day of May, 2008.



BRIAN C. McNEIL
Executive Director

DISSENT: _____

DISSENT: _____

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